

## Technical Review Panel Member

### Curriculum Vitae

**Name:** Pedro G. Suarez

**Nationality:** Peruvian, permanent resident in the United States.

**Additional languages:** English, Spanish

**Expertise:** TB and TB/HIV, RSSH for TB control.

### Qualifications:

| Qualification                            | Institution                                     | Department          | Year       |
|--|---|---------------------|------------|
| Medicine, Bachelor                       | University of San Marcos, Lima, Peru            | Faculty of Medicine | 1983       |
| Medical Surgeon, MD                      | University of San Marcos, Lima, Peru            | Faculty of Medicine | 1983       |
| Public Health & Management, Postgraduate | University of San Marcos, Lima, Peru and others | Not applicable      | 1985 -2000 |

### Employment History

| Employer  | Position  | Place   | Year           |
|---|---|---|----------------|
| Management Sciences for Health  | Global TB Technical Lead, Director, TB and TB-HIV/AIDS Program, Senior Program Associate for TB and TB-HIV/AIDS | USA - Global  | 2004 - Present |
| World Health Organization, Pan American Health Organization, Canadian Lung Association and Management Sciences for Health | Consultant  | Ecuador, Dominican Republic, Venezuela, Brazil, USA | 1994 - 2003    |
| Ministry of Health  | Executive Director of the National Communicable Diseases - Tuberculosis and Leprosy Control Program             | Lima, Perú  | 1990 - 2001    |

| Employer                 | Position   | Place      | Year        |
|--------------------------|--|------------|-------------|
| Ministry of Health       | Medical Doctor Assistant   | Lima, Perú | 1984-1990   |
| University of San Marcos | Auxiliary Professor on Public Health, Faculty of Medicine – Academic Department of Public Health | Lima, Peru | 1990 - 2003 |

## Relevant Publications

Dr. Suarez has a 47 book chapters (author, co-author, contributor), over 40 peer-review articles (author, co-author), and over 200 abstracts relating to TB and TB/HIV control.

### Selected publications:

1. Pedro G Suarez. "Tuberculosis control - is DOTS the health breakthrough of the 1990s?". 1997 World Health Forum.
2. Pio A, Suárez PG, Alarcón E et al. *"Challenges and opportunities for tuberculosis control in big cities. Experience of Lima/Callao Metropolitan area"*. PAHO/WHO. OPS/HCP/146/99. (Spanish and English)
3. Espinal MA, Kim SJ, Suárez PG, et al. *"Standard Short Course Chemotherapy for drug-resistant tuberculosis: treatment outcome in 6 countries"*. JAMA 2000; 283: 2537-45
4. PG Suárez, Catherine J. Watt, Edith Alarcón, Jaime Portocarrero, David Zavala, Roberto Canales, Fabio Luelmo, Marcos A. Espinal and Christopher Dye. *"The Dynamics of Tuberculosis in Response to 10 Years of Intensive Control Effort in Peru"*. The Journal of Infectious Diseases 2001; 184:473-78
5. M.A. Espinal, K Laserson, M. Camacho, Z Fusheng, S.J. Kim, E. Tlali, I. Smith, P. Suárez, M.I. Antunez, A.G. George, N. Martín-Casanova, P. Simelane, K Weyer, N. Binkin, M.C. Raviglione *"Determinants of drug-resistant tuberculosis: analysis of 11 countries"*. The International Journal of Tuberculosis and Lung Disease; Vol 5, Number 10; October 2001: 887-893
6. Pedro G. Suarez. "First requirement for control of multidrug resistant TB: Realism" 2002. Bulletin of the World Health Organization 2002 | journal-article EID: 2-s2.0-0036277617
7. PG. Suárez, K. Floyd, J. Portocarrero, E. Alarcón, E. Rapiti, G. Ramos, C. Bonilla, I. Sabogal, I. Aranda, C. Dye, M. Raviglione, M. Espinal. *"Feasibility and cost-effectiveness of standardized second-line drug treatment for chronic tuberculosis patients: a national cohort study in Peru"* 2001. The Lancet. Vol 359. Pages 1980:1989. June, 2002
8. Rajesh Gupta, J. Peter Cegielsky, Marcos A. Espinal, Miryam Henkens, Jim Y Kim, Catherina S.B. Lambregts- Van W, Jong-Wook Lee, Mario C. Raviglione, Pedro G. Suárez

and Francis Variane. *“Increasing transparency in partnership for health – introducing the Green Light Committee”*. Tropical Medicine and International Health. Vol 7 No 11 PP 970-976. November 2002

9. Pablo E. Campos, Pedro G. Suárez, Jorge Sánchez, David Zavala, Jorge Arévalo, Eduardo Ticona, Charles M. Nolan, Thomas M. Hooton, King K. Colmes. *“Multidrug-resistant Mycobacterium tuberculosis in HIV-Infected Persons, Peru”*, Emerging Infectious Diseases, Vol. 9, No. 12, December 2003 1571

10. H. Ahmadzai, F. Kakar, M. Rashidi, P.G.Suarez, O. Ameli, and A. F. Hartman. *“Scaling Up TB DOTS in a Fragile State: Post-Conflict Afghanistan”*. The International Journal of Tuberculosis and Lung Disease, vol. 12, no. 2, Feb. 2008, pp. 180-185(6).

11. Verena Mauch, Frank Bonsu, Margaret Gyapong, Elizabeth Awini, Pedro Suarez, Belkys Marcelino, Ricardo Elias Melgen, Knut Lönnroth, Nguyen Viet Nhung, Nguyen Binh Hoa, Eveline Klinkenberg. *“Free TB diagnosis and treatment are not enough – Patient cost evidence from three continents”*. The International Journal of Tuberculosis and Lung Disease, Volume 17, Number 3 - March 2013

12. Mauch V, Melgen R, Marcelino B, Acosta I, Klinkenberg E, Suarez P. *“Tuberculosis patients in the Dominican Republic face severe direct and indirect costs and need social protection”*. Rev Panam Salud Publica. 2013;33(5):332–9.

13. Balewgizie Sileshi, Nigussie Deyessa, Belaineh Girma, Muluken Melese, Pedro Suarez. *“Predictors of mortality among TB-HIV Co-infected patients being treated for tuberculosis in Northwest Ethiopia: a retrospective cohort study”*. BMC Infectious Diseases 2013, 13:297 doi:10.1186/1471-2334-13-297

14. Selamawit Hirpa, Girmay Medhin, Belaineh Girma, Muluken Melese, Alemayehu Mekonen, Pedro Suarez, Gobena Ameni. *“Determinants of multidrug-resistant tuberculosis in patients who underwent first-line treatment in Addis Ababa: a case control study”*. BMC Public Health 2013, 13:782 <http://www.biomedcentral.com/1471-2458/13/782>

15. Michael Abouyannis, Russell Dacombe, Isaias Dambe, James Mpunga, Brian Faragher, Francis Gausi, Henry Ndhlovu, Chifundo Kachiza, Pedro Suarez, Catherine Mundy, Hastings T Banda, Ishmael Nyasuluf, S Bertel Squirea. *“Drug resistance of Mycobacterium tuberculosis in Malawi: A cross-sectional survey”*. Bulletin World Health Organization 2014;92:798–806/doi: <http://dx.doi.org/10.2471/BLT.13.126532>

16. D. Jerene, M. Melese, Y. Kassie, G. Alem, S. H. Daba, N. Hiruye, B. Girma, P. G. Suarez. *“The yield of a tuberculosis household contact investigation in two regions of Ethiopia”*. The International Journal of Tuberculosis and Lung Disease 19(8):898–903 <http://dx.doi.org/10.5588/ijtld.14.0978>

17. Dememew, Z. G., M. Melese, N. Hiruy, B. Girma, D. Jerene, P. Suarez, et al. "Trends in tuberculosis case notification and treatment outcomes after interventions in 10 zones of Ethiopia". *The International Journal of Tuberculosis and Lung Disease*. Jan. 2016. 20(9):1192–8. DOI: 10.5588/ijtld.16.0005.
18. Muluken Melese, Degu Jerene, Genetu Alem, Jemal Seid, Feleke Belachew, Yewulsew Kassie, Dereje Habte, Solomon Negash, Gonfa Ayana, Belaineh Girma, Yared K. Haile, Nebiyu Hiruy, Pedro G. Suarez. "Decentralization of Acid Fast Bacilli (AFB) External Quality Assurance Using Blind Rechecking for Sputum Smear Microscopy in Ethiopia" *PLoS ONE* 11(3): e0151366. doi:10.1371/journal.pone.0151366
19. Tadesse, Y., Z. Gashu, D. Habte, N. Hiruy, S. Negash, K. Melkieneh, D. Jerene, M. Melese, P. Suarez, et al. "Uptake of isoniazid preventive therapy among under-five children: TB contact investigation as an entry point" *PLoS ONE*. 2016; 11 (5): e0155525. DOI: 10.1371/journal.pone.0155525.
20. Gashu, Z., D. Jerene, M. Ensermu, D. Habte, M. Melese, N. Hiruy, E. Shibeshi, B. Girma, P. Suarez. "The Yield of Community-Based Retrospective Tuberculosis Contact Investigation in a High Burden Setting in Ethiopia". *PLoS ONE*. August 2, 2016. <http://dx.doi.org/10.1371/journal.pone.0160514>.
21. Habte, D., M. Melese, N. Hiruy, Z. Gashu, D. Jerene, P. Suarez, et al. "The additional yield of GeneXpert MTB/RIF test in the diagnosis of pulmonary tuberculosis among household contacts of smear positive TB cases". *Int J Infect Dis*. 2016; pii: S1201-9712(16)31109-2. DOI: 10.1016/j.ijid.2016.07.002.
22. D. Jerene, W. Abebe, K. Taye, P. G. Suarez, Y. Feleke, I. Hallstrom, A. J. Ruff "Tuberculosis along the continuum of HIV care in a cohort of adolescents living with HIV in Ethiopia" *International Journal of Tuberculosis and Lung Disease* , Vol. 21 (1): 32-37(6). <http://dx.doi.org/10.5588/ijtld.16.0105>
23. Belay Tessema, Feleke Moges, Dereje Habte, Nebiyu Hiruy, Shewaye Yismaw, Kassahun Melkieneh, Yewulsew Kassie, Belaineh Girma, Muluken Melese, Pedro G. Suarez "Vitamin D deficiency among smear positive pulmonary tuberculosis patients and their tuberculosis negative household contacts in Northwest Ethiopia: a case-control study" *Ann Clin Microbiol Antimicrob* (2017) 16:36. DOI 10.1186/s12941-017-0211-3
24. Yohannes Mollaa, Degu Jerene, Ilili Jemal, Gebrie Nigussie, Tenagne Kebedea, Yewulsew Kassie d, Nebiyu Hiruya, Getachew Aschalea, Dereje Habtea, Zewdu Gashua, Yared Kebede, Haile d, Muluken Melese, Pedro Suarez "The experience of scaling up a decentralized, ambulatory model of care for management of multidrug-resistant tuberculosis in two regions of Ethiopia". *Journal of Clinical Tuberculosis and other Mycobacterial Diseases* 7 (2017) 28-33 <http://dx.doi.org/10.1016/j.jctube.2017.03.001>
25. Degu Jerene, Nebiyu Hiruy, Ilili Jemal, Wondimu Gebrekiros, Tadesse Anteneh, Dereje Habte, Muluken Melese, Pedro Suarez, Gloria Sangiwa. "The yield and feasibility of

integrated screening for TB, diabetes and HIV in four public hospitals in Ethiopia” *International Health*, Volume 9, Issue 2, 1 March 2017, Pages 100–104, <https://doi.org/10.1093/inthealth/ihx002>

26. Qader G, Hamim A, Sayedi M, Rashidi M, Manzoor L, Seddiq MK, Ikram N, Suarez PG. “Addressing tuberculosis control in fragile states: Urban DOTS experience in Kabul, Afghanistan, 2009-2015” *PLoS ONE*. 2017; 12(5): e0178053. <https://doi.org/10.1371/journal.pone.0178053>

27. Melese M, Habte D, Girma B, Kassie Y, Negash S, Melkeneh K, Daba S, Negussie G, Haile Y, Jerene D, Hiruy N, Gashu Z, Timmons B, Suarez P. “Use of indicators of standards of care to improve tuberculosis program management in Ethiopia”. *Journal of Clinical Tuberculosis and Other Mycobacterial Diseases*. 2018;10:17-23. doi: <https://doi.org/10.1016/j.jctube.2017.12.001>.

28. Asfaw Ayalew, Zewdu Gashu, Tadesse Anteneh, Nebiyu Hiruy, Dereje Habte, Degu Jerene, Genetu Alem, Ilii Jemal, Muluken Melese, Pedro G. Suarez. “Improvement in tuberculosis infection control practice via technical support in two regions of Ethiopia”. *BMC Infectious Diseases* (2018) 18:557 <https://doi.org/10.1186/s12879-018-3459-0>

29. Z. Gashu D, D. Jerene, D. G. Datiko, N. Hiruy, S. Negash, K. Melkieneh, D. Bekele, G. Nigussie, P. G. Suarez, A. Hadgu. “Seasonal patterns of tuberculosis case notification in the tropics of Africa: A six-year trend analysis in Ethiopia”. *PLoS ONE* 13(11): e0207552. doi: <https://doi.org/10.1371/journal.pone.0207552>

30. Kirirabwa NS, Kimuli D, DeJene S, Nanziri, C, Birabwa E, Okello DA, Suarez PG, Kasozi S, Byaruhanga R, Lukoye D. “Response to anti-tuberculosis treatment by people over age 60 in Kampala, Uganda”. *PLoS ONE* 13(12): e0208390. <https://doi.org/10.1371/journal.pone.0208390>

31. Qader G, Seddiq MK, Rashid KM, Hami A, Akhgar MH, Ahma B, Drye S, Somj A, Melese M, Suarez PG. “Prevalence of tuberculosis among mentally ill patients in conflict-stricken Afghanistan: a cross-sectional study”. *International Journal of Infectious Diseases*. 2019; pii:S1201-9712(19)30346-7. doi: 10.1016/j.ijid.2019.08.020.

32. Datiko DG, Habte D, Jerene D, Suarez P. “Knowledge, attitudes, and practices related to TB among the general population of Ethiopia: Findings from a national cross-sectional survey”. *PLoS One*. 2019; 14(10): e0224196. doi: <https://doi.org/10.1371/journal.pone.0224196>

33. Daniel G. Datiko, Degu Jerene, Pedro Suarez. “Stigma matters in ending tuberculosis: Nationwide survey of stigma in Ethiopia” *BMC Public Health* (2020) 20:190. Doi: <https://doi.org/10.1186/s12889-019-7915-6>

34. Daniel Datiko, Ameha Hadgu, Degu Jerene, Pedro G. Suarez. “High urban tuberculosis case notification rates can be misleading: evidence from an urban setting in

Ethiopia” . *BMC Public Health* (2020) 20:302.doi: <https://doi.org/10.1186/s12889-020-8290-z>

35. Z. G. Dememew, D. Jerene, D. G. Datiko, N. Hiruy, A. Tadesse, T. Moile, D. Bekele, G. Yismawu, K. Melkieneh, B. Reshu, P. G. Suarez. “The yield of community-based tuberculosis and HIV among key populations in hotspot settings of Ethiopia: A cross-sectional implementation study”. *PLoS ONE* 15(5): e0233730. <https://doi.org/10.1371/journal.pone.0233730>

36. Daniel G. Datiko, Degu Jerene, Pedro Suarez “ Patient and health system delay among TB patients in Ethiopia: Nationwide mixed method cross-sectional study”. *BMC Public Health* (2020) 20:1126. doi: <https://doi.org/10.1186/s12889-020-08967-0>

37. Dereje Habte, Yared Tadesse, Dereje Bekele, Genetu Alem, Degu Jerene, Nebiyu Hiruy, Zewdu Gashu, Tadesse Anteneh, Daniel G. Datiko, Yewulsew Kassie, Pedro G. Suarez, Muluken Melese  
“Factors Determining Treatment Success in Children with Drug-Sensitive Tuberculosis in Ethiopia: A Three-Year Retrospective Analysis”. *Am. J. Trop. Med. Hyg.*, 103(5), 2020, pp. 1813–1817. doi: <https://doi.org/10.4269/ajtmh.19-0816>

38. Said Mirza Sayedi , Mohammad Khaled Seddiq, Mohammad K. Rashidi, Ghulam Qader, Naser Ikram, Muluken Melese, Pedro G. Suarez “Active household contact screening for tuberculosis and provision of isoniazid preventive therapy to under-five children in Afghanistan”. Oct 15, 2020 *PLoS ONE*.doi: <https://doi.org/10.1371/journal.pone.0240031>

39. Isabella Gomes, Mehdi Reja, Sourya Shrestha, Jeffrey Pennington, Youngji Jo, Yeonsoo Baik, Shamiul Islam, Ahmadul Hasan Khan, Abu Jamil Faisal, Oscar Cordon, Tapash Roy, Pedro Suarez, Hamidah Hussain, David Dowdy. "Incorporating patient reporting patterns to evaluate spatially targeted TB interventions". *Annals of Epidemiology*. Volume 54, February 2021, pages 7 -10. doi: <https://doi.org/10.1016/j.annepidem.2020.11.003>

## Additional Information

### Awards:

- “Alleyne World Health Day Award” presented by The American Association for World Health, WHO/PAHO (1997)
- “Recognition for outstanding achievement in establishing an effective NTP on the World Day of Anti TB Fight 1998” by the Peruvian Congress, Health Commission (1998).
- “Recognition and Award of Princess Chichibu Memorial TB Global Award for 2000. Japan Anti – Tuberculosis Association” (2000).
- Award certificate of appreciation of the Afghan Ministry of Public Health for his contribution on expanding DOTS in Afghanistan (March 2006).
- MSH “President’s Award 2013 – Best Publication”
- MSH “President’s Award 2016 – Best Publication”
- MSH “President’s Award 2017 – Best Publication”

## **Regional and Country Experience:**

**Africa:** Ghana, Ethiopia, Malawi, Uganda, Namibia, Nigeria, South Africa, South Sudan, Tanzania, Zambia, Equatorial Guinea

**Asia:** Afghanistan, Bangladesh, Pakistan

**Americas:** Peru, Haiti, Ecuador, Dominican Republic, Mexico, Venezuela, Brazil, Colombia, El Salvador

## **Areas of expertise:**

Pedro Suarez is a medical doctor with over twenty-eight years of experience developing, managing, implementing, and advising public health programs focused on TB and TB/HIV control programs and projects at an international and global level.

I was at the forefront and technical lead to implement the very successful Peruvian TB control program from 1990 to 2001. Under my leadership, the NTP was a pioneer implementing the DOTS strategy countrywide with a demonstrated reduction of 50% in the TB incidence over the decade.